

REMARKS

Applicants thank the Examiner for the consideration given the present application. Upon entry of the claim cancellations herein, Claims 1-21 will be pending. Claims 22 and 23 have been cancelled.

The Provisional Obviousness-type Double Patenting Rejection

Claims 1 – 23 have been provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over the claims of co-pending Application No. 10/014377. Included with this response is a Terminal Disclaimer, disclaiming the terminal part of the statutory term of any patent granted on the above-identified application, which would extend beyond the expiration date of the full statutory term defined in 35 U.S.C. §154 to §156 and §173 as presently shortened by any terminal disclaimer of co-pending Application No. 10/014377. Accordingly, it is respectfully requested that the obviousness-type double patenting rejections be withdrawn.

Synopsis of the Present Invention

The present invention, as amended herein, relates to processes for preparing stabilized beverage compositions. Stability is a critical parameter for compositions that comprise one or more insoluble materials such as, for example, opacifiers and nutrients. In an unstable composition, changes may occur over time which result in undesirable phase separation, flocculation or aggregation.

Accordingly, stability of compositions is critically important since the materials thereof may provide benefits such as, for example, opacity or cloud (*e.g.*, for the purpose of providing a desired appearance), nutrition or other efficacious benefit, and mouthfeel. When materials, which would normally deliver one or more of these benefits, are not stable in the corresponding composition, these benefits will be lost. Therefore, in order for the consumer to reap the benefits offered by these beverages, it is important that these beverages are stable. Moreover, in order for such compositions to be commercially useful, the compositions must be stable over an extended period of time, *e.g.*, for at least about 75 days.

Surprisingly, the present inventors have discovered that, by combining a pectin compound and an alginate compound in accordance with the processes described herein, a unique three-dimensional network is provided that stabilizes and supports such insoluble materials as vitamins, minerals, opacifiers, and the like. Because the present invention is generally concerned with stabilizing high-density enhancer material, such as opacifiers and minerals, the NP/M used in the

process is an important factor. Without mixing the ingredients of the present invention within the specific range of NP/M disclosed herein, the three-dimensional pectin-alginate network formed would be incapable of supporting and stabilizing such high-density materials. Simply combining the ingredients and mixing them together, without regard for the NP/M, would not provide the desired stabilization. Indeed, if the NP/M is too low, the pectin-alginate network will not properly form, and if the NP/M is too high, the network will be destroyed. Thus, to stabilize the high-density enhancer material used herein, it is necessary to mix the ingredients within the claimed NP/M range.

The Rejection under 35 U.S.C. § 103(a)

The Examiner has rejected Claims 1-23 under 35 U.S.C. § 103(a) as being obvious in light of several references. Specifically, the Examiner has rejected Claims 1-9 over Barey, U.S. Patent No. 5,866,190, issued on February 2, 1999 (herein "Barey") or Young et al., U.S. Publication No. 2002/0160086, published on October 31, 2002 (herein "Young"); Claims 10-21 over either of the above references, further in view of Mezzino et al., U.S. Patent No. 4,529,613, issued on July 16, 1985 (herein "Mezzino"); and Claims 22 and 23 over Barey or Young, further in view of Gobbo et al., U.S. Patent No. 5,529,796, issued on June 25, 1996 (herein "Gobbo") or Bunger et al., U.S. Patent No. 5,385,748, issued on January 31, 1995 (herein "Bunger.")

Claims 22 and 23 have been cancelled herein, and therefore, will not be addressed further. In regards to the remaining claims, Applicants respectfully traverse the Examiner's rejection of Claims 1-9 over Barey or Young, and the rejection of Claims 9-21 over either Barey or Young in view of Mezzino.

Barey describes a composition for stabilizing non-milk beverages containing insoluble components, particularly those based on fruits and/or vegetables (*i.e.* pulp), made by combining pectin and alginate to form a three-dimensional network. In contrast, Young discusses stabilized acidic milk-based beverages that include a stabilizer, which may be gum Arabic, gelatin, xanthan, locust bean, propylene glycol alginate, pectin and the like. Both Barey and Young also claim processes for formulating their respective products. Mezzino discusses both a dry cloud system for producing beverages with enhanced mouthfeel containing a pectin, titanium dioxide and preferably a dextrin, and a dry beverage mix containing the cloud system.

In general, the Examiner states that Barey teaches a process for making a drink by combining pectin and alginates with sugar and acidifying the composition with fruit juice or citric acid. Likewise, the Examiner relies on Young's disclosure to teach an acidic beverage containing milk proteins and stabilizers, two of which may be pectin and propylene alginate. While the Examiner admits that neither reference discloses dispersing the beverage components at a

particular range of NP/M, or for a particular time, the Examiner concludes that “nothing new or unobvious is seen in mixing the ingredients at particular times or NP/M’s...” and that “it would have been obvious to mix for whatever time which would keep the enhancing material in suspension.” Moreover, the Examiner relies on Mezzino as teaching the inclusion of titanium dioxide and pectin in a dry cloud system, which is used to formulate a dry beverage mix. In general, the Examiner states that even though Mezzino discloses a dry mix, it is known to add an enhancer, such as the titanium dioxide, to pectin before adding it to other materials to prevent precipitation from the dry mix. Therefore, the Examiner concludes that it would have been obvious to add titanium dioxide to the compositions of Barey or Young since it is known that titanium dioxide will precipitate out of solution if mixed without first forming a complex. Applicants respectfully disagree with all of the foregoing assertions.

If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is also nonobvious. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). Presently, Claim 1 is an independent process claim from which all remaining claims, as amended herein, depend. Applicants respectfully assert that, for the following reasons, Claim 1 is nonobvious, and thus, the remaining Claims 2-21 are also nonobvious.

The Examiner bears the burden of factually supporting any *prima facie* conclusion of obviousness. In determining the differences between the cited art and the claims, the question is not whether the differences themselves would have been obvious, but whether the claimed invention as a whole would have been obvious. See *Stratoflex, Inc. v. Aeroquip Corp.*, 713 F.2d 1530 (Fe. Cir. 1983). Inventors of unobvious compositions, such as those of the present invention, enjoy a *presumption* of non-obviousness, which must then be overcome by the Examiner establishing a case of *prima facie* obviousness by the appropriate standard. If the Examiner does not prove a *prima facie* case of unpatentability, then without more, the Applicants are entitled to grant of the patent. See *In re Oetiker*, 977 F.2d 1443.

Applicants respectfully assert that the Examiner has not satisfied the burden of establishing a *prima facie* case of obviousness in regards to the present invention. To establish a *prima facie* case of obviousness under 35 U.S.C. §103, the Examiner must meet three basic criteria. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the cited art reference (or references when combined) must teach or suggest *all* the claim limitations. See, for example, *In re Vaeck*, 947 F.2d 488 (Fed. Cir. 1991). Applicants respectfully assert that the Examiner fails to establish the first and third criteria, and thus, fails to establish a *prima facie* case of obviousness.

1. No Motivation to Modify or Combine References

Applicants respectfully assert that there is no suggestion or motivation to modify the references or combine reference teachings. The mere fact that references can be combined or modified does not render the resultant combination obvious unless the cited art also suggests the desirability of the modification or combination. See *In re Mills*, 916 F.2d 680 (Fed. Cir. 1990).

There is no suggestion or motivation to modify either Barey or Young, such that the present invention would be obvious. Barey teaches beverage compositions with stabilized fruit or vegetable pulp dispersions while Young teaches beverage compositions with stabilized milk protein dispersions. Neither Barey nor Young disclose a process for stabilizing high-density enhancer materials, such as the opacifiers of the present invention. See *Specification*, pg. 14. As explained above, without mixing the ingredients of the present invention within the specific range of NP/M disclosed herein, such high density enhancer materials would not be properly stabilized or supported. As neither Barey nor Young are concerned with stabilizing beverages containing high-density enhancer materials, there is no motivation to modify either reference such that the NP/M claimed herein is obvious in view thereof.

In addition, there is no motivation to modify the Young reference to incorporate the high shear conditions claimed in the present invention, for it is respectfully asserted that the use of high shear conditions would make the Young invention unsatisfactory for its intended purpose. Thus, Young effectively 'teaches away' from the present invention. If a proposed modification would render the cited art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. See *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984). Furthermore, a cited art reference must be considered in its entirety, i.e. as a whole, including portions that would lead away from the claimed invention. See *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983). Specifically, Young teaches mixing the stabilizer (i.e. pectin, alginate and the like) under low shear conditions. Indeed, Young states that mixing under low shear conditions avoids excessive shear, which can "act to break up the negatively charged colloidal complexes, denature the milk proteins and cause foam." See *Young*, [0024]. Thus, using the high shear conditions of the present invention would effectively destroy the composition of Young. Therefore, Young teaches away from the present invention. For these additional reasons, Applicants respectfully assert that there is no motivation to modify the Young reference.

Moreover, there is no motivation to combine the teachings of Mezzino with either Barey or Young in the first instance, as suggested by the Examiner. As stated above, a cited art reference must be considered in its entirety, including portions that teach away from the claimed invention. Mezzino specifically states that in order to stabilize the titanium dioxide in the

reconstituted beverage compositions disclosed therein, it is “critical” that the titanium dioxide is added to an aqueous solution of maltodextrin and pectin and the resultant suspension be dried concurrently. See *Mezzino*, col. 6, lines 30-45. Thus, it is clear that for the dry compositions of *Mezzino* to remain stable once added to a liquid, the titanium dioxide must first be mixed with an aqueous solution of maltodextrin and pectin and dried. Applicants respectfully point out that the present invention does not *require* the inclusion of maltodextrin in the beverage compositions disclosed herein. In fact, presently, maltodextrin, and other similar sweeteners, are simply listed as one or many optional ingredients that *may* be included. Moreover, it is not necessary to first dry the titanium dioxide of the present invention in order to achieve a stabilized beverage. Thus, it is respectfully asserted that, for these two reasons, *Mezzino*, in fact, teaches away from the present invention. For this further reason, Applicants respectfully assert that *Mezzino* is not a proper reference and, therefore, should not be combined with *Barey* or *Young* in an effort to establish a prima facie case of obviousness.

Additionally, *Mezzino* is concerned with a dry beverage mix, rather than a stabilized liquid beverage composition such as taught in *Barey* and *Young*. This is a significant difference in that the compositions of *Mezzino* are temporarily stabilized, for only 24-48 hours, after being combined with a liquid, while *Barey* teaches compositions that are stable for 50 days, and *Young* teaches compositions having a “long shelf life.” See *Barey*, col. 6, line 31, and *Young* [0017]. Therefore, as *Mezzino* is concerned with a completely different medium and result than both *Barey* and *Young*, this is further support that there is no motivation to combine *Mezzino* with either *Barey* or *Young*.

Thus, for all the foregoing reasons, Applicants respectfully assert that there is no motivation or suggestion to modify references or combine reference teachings. Therefore, the first step in establishing a prima facie case of obviousness has not been satisfied.

2. No Teaching of All Claim Limitations

There is no teaching of all the claim limitations. Two features of the present invention are the use of high-density enhancer materials and dispersing the beverage components at an NP/M of from about 20 Watt/kg to about 75 Watt/kg. Neither *Barey* nor *Young* teach either of these features. Moreover, even though *Mezzino* may disclose the incorporation of titanium dioxide in beverage mixes, *Mezzino* is concerned only with dry beverage compositions that are stabilized for 24-48 hours after reconstitution. Additionally, because *Mezzino* teaches dry mixes, there is no discussion of NP/M ranges for mixing beverage dispersions. Thus, *Mezzino* does nothing to remedy the deficiencies in either *Barey* or *Young*. For these reasons, Applicants respectfully

assert that there is no teaching of all the claim limitations, and therefore, the third step in establishing a prima facie case of obviousness has not been satisfied.

CONCLUSION

In view of the foregoing, it is respectfully submitted that the Examiner's rejection under 35 U.S.C. § 103(a) is improper. Reversal of such rejection is therefore respectfully requested.

Respectfully submitted,

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